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United States Patent [19]

Chun et al.

[11] **Patent Number:** 5,266,098[45] **Date of Patent:** Nov. 30, 1993**[54] PRODUCTION OF CHARGED UNIFORMLY SIZED METAL DROPLETS**

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[51] Int. Cl.⁵ **B22F 9/08**

[52] U.S. Cl. **75/335; 75/338; 75/340; 264/10**

[58] Field of Search **75/331, 335-340; 264/10**

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[57] ABSTRACT

A process for producing charged uniformly sized metal droplets in which a quantity of metal is placed in a container and liquified, the container having a plurality of orifices to permit passage of the liquified metal there-through. The liquified metal is vibrated in the container. The vibrating liquified metal is forced through the orifices, the vibration causing the liquified metal to form uniformly sized metal droplets. A charge is placed on the liquified metal either when it is in the container or after the liquified metal exits the container, the charging thereof causing the droplets to maintain their uniform size. The uniformly sized droplets can be used to coat a substrate with the liquified metal.

19 Claims, 3 Drawing Sheets